# SECTION A : MEDICAL, DENTAL AND VETERINARY SCIENCES

A01

## TRANSFER OF PALMYRAH TOXICITY THROUGH MATERNAL MILK TO SUCKLING RATS

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Lactating rats were fed 100%, 50% or 25% palmyrah flour-rat pellet diets from the first day of parturition. Mortality and histopathology of the infants were used to assess the milk transfer of toxicity.

On a 100% diet, infant mortality occurred within the first week. External abnormalities included subcutaneous haemorrhages in the tail, limbs and body walls. Internally the major histopathological abnormalities were in the liver and lungs. Vascular damage was prominent, consisting of severe centrilobular sinusoidal congestion, focal haemorrhages, cloudy swelling and hydropic degeneration of the hepatocytes ; extramedullry haematopoetic foci were absent, in the liver. Moderate to severe haemorrhages into the pulmonary alveolar septa, vascular congestion and non-expansion of the alveoli were seen. The intensity of the lesions was proportional to the concentration of the palmyrah flour in the maternal diet. Survival of the infants was prolonged up to the second week with 50% and 33% diets.

The palmyrah lesions are compared with reports of pyrrolizidine alkaloidal lesions in suckling rats and it is suggested that milk transfer of palmyrah toxicity may contribute to childhood liver disease following maternal consumption of palmyrah flour.